

## A METHOD OF ANASTOMOSIS OF THE VASA DEFERENTIA.

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ANASTOMOSIS of the vasa deferentia is demanded under three conditions, viz:

1. Accidental severing of the duct, either from traumatism or during the performance of surgical operations.
2. After resection for the relief of stricture of the vas or the removal of new growths.
3. Where the vas has been resected on one or both sides for therapeutic purposes and, the object of the resection having been accomplished, restoration of the continuity of the duct is desired.

If a practical, easy, safe and fairly certain method of anastomosis is available, temporary occlusion of the vasa deferentia by resection or ligation is a logical indication in some of the most important conditions with which the surgeon has to deal. I believe that I offer herewith an operation which fulfills these indications. I have performed it in four cases, once with success, once with apparent failure, and twice in cases in which I have had no opportunity to determine whether the operation was successful or not. With my present perfected technique I believe that a large majority of cases operated should be successful. With even a fairly successful method of anastomosis at hand, one may, in my opinion, legitimately employ resection of the vasa deferentia for the relief of the following conditions:

1. Stricture of the vas.
2. Benign neoplasms involving the vas.
3. Incipient prostatic enlargement.

4. Obstinate cases of irritability of the vesical neck.
5. Intractable chronic prostatitis.
6. Intractable seminal vesiculitis.
7. Doubtful tumors of the testis in which we desire to protect the urinary way from possible infection.
8. Suspected tuberculosis of the testis in which operation on the testicle itself is refused.
9. Cases of true spermatorrhea.
10. Cases of spermatophobia in which the mental condition is practically a psychopathy.
11. Certain rare cases in which involuntary seminal emissions are frequent and intractable. (I have met with cases of married men who were afflicted in this way.)
12. Obstinate cases of prostatorrhea.
13. Masturbatory insanity.

Laying aside all theoretic speculation as to the effects of resection of the vasa deferentia, this much is certain, viz., that the operation affords rest to the seminal vesicles and prostate, and lessens their blood supply. The effects of this upon congestive and inflammatory conditions is obvious. In psychopathic subjects, the cessation of visible discharge secured by the operation has a profoundly beneficial effect. One of the favorable points of the double anastomosis of the vasa deferentia is that the continuity of only one duct is sufficient for fertility, and this doubles the chances of success from the operation. The length of time that should be allowed to elapse after resection before anastomosis is performed, of necessity varies with the case.

Technique.—The cord is exposed by an incision about two inches in length. The sheath of the cord is incised carefully and the edges caught with snap forceps. The vas is now carefully separated from the cord and its fascial envelopments, and the requisite portion excised. Where a previous resection has been performed according to my method, a small nodule is found and excised at the site of the previous resection. In my resections where I anticipate performing anastomosis at

some future time, I join the severed vas, as shown in figure 1. This prevents reestablishment of continuity,—granting this to be possible,—and enables the surgeon to readily find the severed ends when he desires to make a true anastomosis.

Both ends of the vas are now probed with a fine filiform bougie, or a bit of silkworm gut,—the latter suggested by my friend, Dr. Ries,—to determine whether the lumen of the vas is patent for a reasonable distance. The duct is now bent at about a right angle and a sharp-pointed probe or long rounded needle passed through the wall of the vas about  $1\frac{1}{4}$  in. from the cut end. (Fig. 2.) A straight strand of the largest size silkworm gut is now passed into the proximal end of the vas and made to emerge at the opening made by the probe or needle. This is drawn through until about three inches of the silkworm gut protrudes. The other end of the strand of gut is now threaded into the distal portion of the vas and the two ends of the severed vas brought together over the coupling thereby formed.

A fine catgut stitch is now inserted in the vas at the line of the anastomosis and tied securely. A second stitch is placed directly opposite the first. In my opinion these stitches are made unnecessary by the next step of the operation, although they make assurance doubly sure in maintaining apposition of the ends of the vas. The edge of the sheath of the cord is now stitched upon itself so as to enwrap the vas in a distinct sheath. The opposite edge of the fascia is now stitched over the cord to the sheath just made for the vas. (Figs. 4 and 5.)

A continuous suture of fine catgut is used, but for clearness of illustration interrupted sutures are shown.

The vas for about an inch or more beyond the line of union of the duct is thus enveloped in a snugly-fitting sheath of fascia that absolutely seals the ends of the tube and prevents them from slipping apart.

The free strand of silkworm gut is passed through a small puncture in the skin just above the upper angle of the wound.

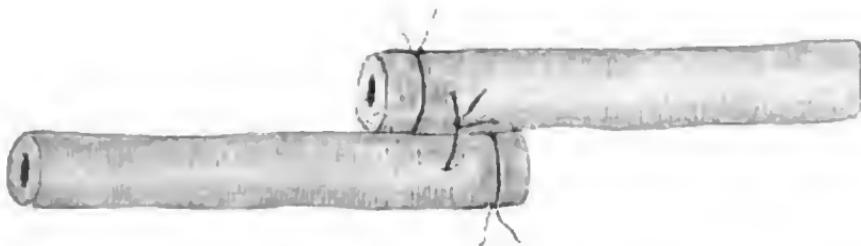


FIG. 1.



FIG. 2.

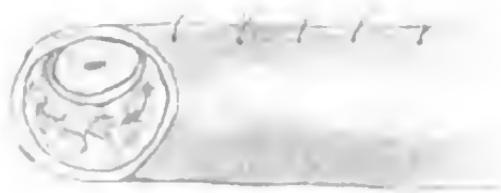
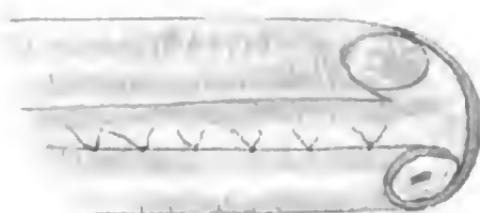
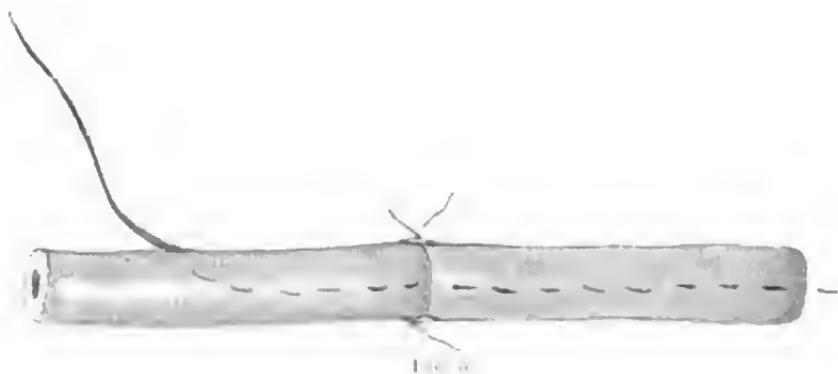


Fig. 5.

(Fig. 6.) It is not wise to use a needle for this purpose, lest the portion of the gut that occupies the lumen of the vas be disturbed.

The skin wound is now sutured in the usual manner, with fine catgut or horse-hair

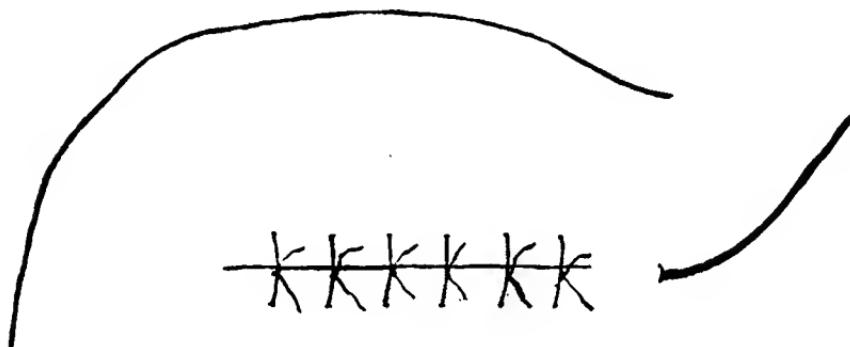


FIG. 6.—Anastomosis of Vasa.

and the ordinary dressings applied. On the tenth day the strand of silkworm gut is withdrawn. A very fine whalebone filiform bougie may be used instead of silkworm gut for coupling the vas.

The advantages claimed for the foregoing are briefly: 1, Accurate anastomosis, not to be secured in any other way; 2, immobility of the anastomosed vas, so necessary to union; 3, maintenance of perviousness of the vas, which is not insured by any other method; 4, simplicity, ease, and rapidity of performance.